UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,797	10/24/2003	Kwan Yuen Abraham Ng	03-446-B	2012

31718 7590 07/27/2004

BELASCO, JACOBS & TOWNSLEY LLP
HOWARD HUGHES CENTER
6100 CENTER DRIVE
SUITE 630
LOS ANGELES, CA 90045

EXAMINER	
BRINSON, PATRICK F	

ART UNIT	PAPER NUMBER
3752	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/693,797	NG ET AL.
	Examiner	Art Unit
	Patrick F. Brinson	3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter recited in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: The specification page 6, lines 19 and 21 refer to the covering as element #15, however, the covering has previously been labeled as element #35.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,952,262 to **Washkewicz et al**.

The patent to **Washkewicz et al**. discloses a flexible reinforced tube (10) comprising an interior tube (11) for conducting fluids or gases, having an inner bore and an outer surface. A layer of braided threads is placed about the outer surface of the interior tube, col. 1, line 39, discloses that the braided material may include stainless steel. A flexible polymeric covering (14) is disposed over the stainless steel braids, thereby protecting the threads from abrasion and

corrosion, as recited in claim 1. Col. 2 discloses that the typical core interior tube is formed from a synthetic polymer material such as Hytrel, which is a trademark for a Dupont Co. thermoplastic co-polyester and nylon, as recited in claims 2 and 3. Also typical cover materials include polyurethanes and thermoplastic elastomers such as Santoprene, as recited in claim 9. Col. 5, lines 19-21, discloses the reinforcement layer (12) as an interwoven braid of reinforcement wires (21, 22), as recited in claims 4 and 5. Col. 3 discloses that as the wire reinforcement is wound over the core under tension the adjacent wires are drawn into tight engagement with the core tube and are closely adjacent one another leaving minute spaces adjacent the overlapping wires. It further discloses that the extrusion process forces the cover through the small spaces between the wire and into contact with the underlying core tube, thereby leaving substantially no gap between the threads and the covering, as recited in claim 10.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Washkewicz et al. '262** in view of US 4,275,768 to **Riggs et al.**

The patent to **Washkewicz et al. '262** does not disclose the outer covering being formed from a transparent material. The patent to **Riggs et al.** discloses a reinforced hose, including an interior tube (12) a reinforcement layer (14) and a transparent outer layer (16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute for the cover of **Washkewicz et al. '262** a transparent covering, as suggested by **Riggs et al.** in order to permit the reinforcement layer to be visible.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Washkewicz et al. '262** in view of US 4,585,035 to **Piccoli**.

The patent to **Washkewicz et al. '262** discloses the recited structure with the exception of reciting the specific gauge of the stainless steel threads. The patent to **Piccoli** discloses a reinforced hose including an interior tube (1) and a braided sleeve (2) consisting of a first braid member (3) that is composed of bundles of high tensile strands of wire. It is disclosed that steel wire is most commonly used, and that the number of strands of individual wire in each wire bundle and the gauge of the wire

strands are dependent on the load carrying requirements of the hose. Col. 3, lines 22-25, discloses that the gauge of the wire is limited only by the capabilities of the braiding equipment being utilized and current commercially available braiders can utilize individual strands gauges of from about 0.005 to 0.036 inches. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the stainless steel strands of **Washkewicz et al. '262** to have a gauge within the range of 0.002 to 0.070 inches, as suggested by **Piccoli** wherein it is known in the art that reinforcement gauge is dependent on both the load requirements of the hose and the braiding equipment. As for the tension at which the threads are disposed about the interior tube, **Piccoli** discloses a braiding tension generally about 10 foot-pounds, however the force at which the braided reinforcement is wound about the interior tube is considered as a function of the method of forming the tube, and the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

6. Claims 1-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,381,834 to **King** in view of **Washkewicz et al '262**.

The patent to **King** discloses a hose assembly including an interior tube (12) for conducting fluids or gases, the interior tube having an inner bore and an outer surface. A braided reinforced layer (13) is disclosed placed about the outer surface of

the interior tube, and a flexible polymeric covering (14) disposed over the braided layer protecting the threads from abrasion and corrosion. Col. 5 discloses that the coating (14) in conjunction with the braided layer (13) allows the inner liner (12) to bend without kinking, provides strength, allowing the inner liner to accommodate a fluid under pressure and aids in abrasion resistance of the tubular member. The coating (14) is formed over the braided material so that an exterior surface of the covering will have a texture related to the threads there under, as disclosed in col. 4. Lines 58-61 disclose that the coating does not extend radially outwardly from the outer periphery of the braided layer, therefore the threads of the braided layer are discernible. **King** discloses the claimed invention with the exception of using stainless steel threads for the reinforced layer. The patent to **Washkewicz et al. '262** discloses a flexible reinforced hose including a braided reinforced layer that may be formed of stainless steel threads. It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute for the glass and aramid fibers of the reinforcement layer of **King**, stainless steel as suggested by **Washkewicz et al. '262** in order to alternatively provide the necessary strength and resistance to frictional wear and to provide additionally radial resistance to pressures inside and outside of the interior hose.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Washkewicz et al. '178, Mutzner et al., Berlincourt et al., Coronado et al., and Chermak et al. are all pertinent to Applicant's invention in disclosing hoses including braided reinforcement between inner and outer hoses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (703) 308-0111. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick F. Brinson
Primary Examiner
Art Unit 3752

P. F. Brinson
July 23, 2004